## EARLY 19th CENTURY DERMATOLOGY AND THE BROTHERS MAHON\*

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The dawn of the nineteenth century saw many revolutionary changes in medicine as well as in world affairs. Groups of earnest investigators and practitioners in every country of Europe, undisturbed by political upheaval and turmoil, could be found devoting their attention to the study of cutaneous diseases. In England there were Willan (1757-1812), Bateman (1778-1821), and Samuel Plumbe (about 1837); Joseph Plenck in Vienna (1732-1807), Peter Frank (1745-1821) and his gifted son Joseph Frank (1771-1842) in Germany; and that succession of notable figures in France, beginning with Lorry (1726-1823), Alibert (1768-1837), Biett (1781-1840), and a little later Cazenave (1802-1877), Rayer (1793-1867) and Bazin (1807-1878).

It was an age of intense scientific activity; Priestly and Lavoisier (1774-1777) had, in the closing years of the preceding century, identified the mysterious phlogiston as the element oxygen; Charles Bell (1774-1842) and Marshall Hall (1790-1857) were doing fundamental work in the physiology of the nervous system, while in the hospitals of Paris Pinel studied mental diseases, Orfila laid the foundations for the new science of toxicology and legal medicine, Dupuytren and Lisfranc did memorable work in surgery, Laennec introduced auscultation, and with Corvisart and Louis, studied problems in internal medicine; and Baudelocque accomplished his famous investigations in the field of obstetrics.

Contemporaneously with these, states Brodier, at the central admission office of the hospitals, the Mahon brothers, who were empirically healing the ringworm sufferers of Paris with their epilating salve, investigated the origin and nature of these affections and the younger brother gave the world the first description of tinea tonsurans.

<sup>\*</sup> Read before the Section of Historical and Cultural Medicine, May 9, 1934.

The specific cause of no disease was known, and the study of gross and microscopic pathology was yet to be undertaken. The medical men of the period were, perforce, compelled to content themselves with the physical characteristics of disease, and busied themselves chiefly with minute and exact description and classification of the morbid entities that they were able to recognize. Lack of classification, and imperfect classification, had seriously hampered the progress of the study of cutaneous diseases.

The high lights in the development of proper classification are briefly as follows: The first was introduced by Mercurialis (De Morb. Cut. 1576), adopted by Daniel Turner (1667-1741) (Tr. des. Mal. de la Peau 1743: English edition earlier) and again revised by Alibert in 1806. The basis of this classification is the seat of the disease, one group being for the head, and one for the rest of the body. Alibert called cutaneous affections of the head "teignes," and those of the body "dartres." He would then append the proper descriptive adjective, depending on whether the eruption was dry, moist, crusted, etc.

The next classification was that of Plenck (1790), which was subsequently improved upon by Willan. Plenck was the first to reject topographical differences, and to arrange cutaneous diseases according to their external characteristics. He committed the error however, of confusing the products of inflammation with the true anatomical characters of the disease. Willan's modification, which was a great step forward, was to reject all products of inflammation, and to divide the elementary lesions of the skin into eight orders.

The third classification was advanced by Joseph Frank, who, following the example of Noel Retz (1790) and Derien (1804), divided cutaneous diseases into acute and chronic ones. This seemed a natural division, but proved impracticable.

It was an age of unrest. Political revolution in France, and later the Napoleonic wars with their aftermath involving all of Europe, and the industrial revolution in Eng-

land, all contributed to the uncertainty and restlessness of the times.

The spirit of the French revolution however, did not interfere with the development and progress of science in France. Medicine, and Dermatology in particular, made great advances in the decades following it. On the 27th of November, 1801, the St. Louis Hospital was made a hospital for Skin Diseases. As a result, a tremendous impetus was given to the study of dermatology in France, and French dermatology reigned supreme for the first half of the century.

Possibly the one subject which gave rise to more controversy and dispute at the time, was that embraced by the general term of parasitic diseases. Generations of conjecture regarding the cause of scabies were put at rest when Renucci, in 1834, first demonstrated the Acarus scabiei at the Hôpital St. Louis. This had been preceded by the amusing deception practiced by Galès in 1812, whose organism proved to be the mite found in spoiled cheese. The modern knowledge of human ringworm infections dates from Schönlein's (1839) and Gruby's (1841) independent researches into the nature of favus.

The term Tinea, or Teignes, to denote ringworm infections, is an ancient one whose origin is shrouded in obscurity. According to Pusey, Cassius Felix first used the word Tinea about 400 A. D. in his summary of medicine, including skin diseases. Bazin states that the word is found first in the writings of Etienne of Antioch, who translated Arabian works, but that it had also been used popularly to indicate the tenacity and persistence of the disease it denotes. The great physicians of the Italian Renaissance, like Mercurialis, designated all diseases of the scalp as Teignes. The term was used in the middle ages by Guy de Chauliac, among others, who recognized five kinds of tinea (T. favosa, T. ficosa, T. amedosa, T. uberosa and T. lupinosa) and subsequently by Ambroise Paré who reduced the number to three species (T. ficosa, T. furfurosa, and T. corrosiva).

Alibert, who at the beginning of the 19th Century represented the old traditions in French medicine, adopted the classification of Teignes of Guy de Chauliac in his first works. Later, in changing it, he made a rather serious error. Up to this time, T. lupinosa designated our modern favus, and the term favus indicated our present day impetigo. Alibert abandoned T. lupinosa and called it Favus. This error was noted later by Gilbert and Feulard, and it was due to this error that our modern favus was given its name.

In England Willan and Bateman had classified the ancient French Teignes under the name Porrigo. To these authors, P. lupinosa remains the tinea vera of the ancients, and P. favosa is our impetigo. But this classification could not prevail in France over the error committed by Alibert. Hence it is by the name of Favus that the "vraie teigne" of the ancients, the tinea vera that was first recognized by medical men, is known today, not only in France, but also in England and throughout the entire world.

Biett, the first Willanist in France, and the former disciple of Alibert, changed the P. favosa of Willan from its original sense to designate the vraie teigne—Favus. The same word in the works of Bateman and Biett, therefore, indicates two different entities. Biett, in addition, abandoned the other Willanistic porrigos. He had confused P. scutulata, our teigne tondante (ringworm of the scalp), and combined it with favus, a serious error which necessitated a new discovery of something which had already been described. Bateman had also studied as a separate disease, what he called P. decalvans, the alopecia areata of the entire world. Biett did not support this doctrine of Willan; hence la pelade (alopecia areata) remained confused with the scars of favus, under the term Favus sine Favis (Alibert), a mistake which further complicated the situation. In short, Biett, again in accordance with tradition, ended by keeping the term Porrigo for the Favus. In the same way Rayer, who frequently drew on the preceding century (the 18th) for inspiration, returned to the conception of the single tinea, and from now on it was called only Fayus.

Favus was not the only contagious parasitic disease of the scalp. There is a group of others designated today as Tinea tonsurans (*Teignes tondantes*), ringworm of the scalp. The history of these has been far more involved than that of Favus. The former nearly always presented a uniform picture, whereas ringworm of the scalp differed greatly in clinical appearance, and also frequently appeared on other parts of the body.

English medicine, since the 16th Century, had recognized under the name ringworm, the lesions which were later called in France herpès circiné and teigne tondante. Bateman, who recognized that it was contagious and epidemic termed it Herpes Circinnatus. Samuel Plumbe, in his "Practical Treatise of Diseases of the Skin" (London, 1824) also recognized that the scalp affection might produce lesions on other parts of the skin. He also was the first, incidentally, to suggest epilation for tinea tonsurans.

Willan and Bateman had classified ringworm of the scalp with the Porrigos. They distinguished six types: P. lupinosa, our Favus, and under P. scutulata, they described ringworm of the scalp, giving rather a mediocre description. The other Porrigos were P. larvalis, impetiginous eczema; P. furfurans, our pityriasis capitis; P. decalvans, our alopecia areata; and P. favosa, impetigo contagiosa.

These authorities had even less success in the treatment of these vexatious infections than they had with their proper classification and nomenclature. The fate of the child with ringworm of the scalp a century ago was indeed a sorry one. The only methods of treatment extant were most cruel and inhuman. A favorite was the calotte, which is a leather disk smeared with pitch and then applied to the scalp. When removed with a brisk twitch, the adherent hairs are uprooted en masse. Other methods involved the use of irritating ointments and solutions, which occasionally gave rise to severe constitutional reactions, and, more rarely, to fatal sequelae. Treatment consumed months and even years.

It is most interesting therefore, to learn that at this time, the Administration of Hospitals of France had entrusted the treatment of these affections to the two brothers Mahon, laymen, who evidently, to judge from the report below, were able to secure superior therapeutic results.

The following is an extract of a report made to the General Welfare Council in 1816, by one of its members, on the state of the hospitals and asylums in Paris, from January 1, 1804, to January 1, 1814.

"The treatment of ringworm at the central admission office of the hospitals in Paris was instituted by decree on the 31st of December, 1806, and a similar treatment commenced at the Infants Hospital.

'Before adopting the remedy of the Mahon brothers the Council had conducted a two year trial of it at the St. Louis Hospital, under the eyes of its own physicians; their report was favorable. From 1809-1813 it was tried on 795 children; 527 of these were cured. 196 were not cured, or, if they seemed to be, the disease recurred, and 72 were still under treatment on December 31, 1813. The Mahon brothers received in addition to a yearly stipend of 1000 francs each, six francs per capita for the children declared cured.'"

This then, was the confused condition and uncertain status of parasitic diseases in the first decades of the nineteenth century in France, when, in 1829, there appeared a handsome octavo volume entitled "Récherches sur le siège at la nature des Teignes" by M. Mahon the younger, one of two brothers, who, though laymen, were officially entrusted with the treatment of these diseases in the hospitals of Paris, Lyons, Rouen, Dieppe, Elbeuf and Louviers.

This book, consisting of a lengthy 40 page introduction, 373 pages of text, and five excellent colored plates drawn by M. Zwuinger, son-in-law of the elder Mahon, represents a significant milestone in our knowledge of these diseases. It was the first volume entirely devoted to such a specialized subject and considers thoroughly all aspects of the question

in approved monographic style. The date, 1829, is noteworthy, as being before the discovery of the specific agents causing these infections.

The foreword is a quotation from Alibert (Précis theorique et pratique sur les maladies de la peau) indicating the desirability of more careful and exact researches into the origin of Teignes, or parasitic diseases of the scalp.

The preface contains a lengthy declaration of gratitude to the Administration of Hospitals of Paris for deigning to entrust the treatment of tineas to the Mahons, thereby providing them with the means of making thousands of observations of all types of this disease. They wish to thank, among others, Alibert, Richerand, and Biett, for assistance in their work.

In the introduction, the words of Alibert are quoted to show the incentive for undertaking the work. The diligence of the studies, and as a result, the ability to separate off into other groups diseases which formerly were classified with the tineas is alluded to.

The classification followed by the Mahons is: T. faveuse, T. tondante, T. amiantacée, T. furfuracée, T. muqueuse, T. granulée, Crasse laiteuse, Crasse membraneuse. A chapter is devoted to each species. Chapters on differential diagnosis and treatment, with tables showing the results of successful treatment conclude the book.

Mahon the elder, according to Sabouraud, discovered ringworm of the scalp and named it. His description seems to be of the type recognized today as Microsporosis, and was far more complete and explicit than that of Willan and Bateman. It described various sized areas denuded of hair, with broken off hairs visible; in these areas the skin is bluish, and when scratched, covered with whitish dust. Not only is it described thoroughly, but mention is made of its frequent transmission to the glabrous skin and to the finger nails. Both trichophytosis and favus of the nails are described and identified as two separate entities, Mahon emphasizing the thickening and distortion of the nail.

the difference in color, being white in the former condition, and yellow in favus. Thus the most important manifestations of the disease were simultaneously and precisely recorded by an observer who was not even a physician.

As a matter of interest, Favus of the nails was discovered by one of the Mahon brothers, who accidentally infected himself while epilating a patient with his finger nails. He was thus enabled to observe the course and evolution of the disease at first hand.

The chapter on treatment is very wordy, replete with apologies and mentions all the treatments that have been employed except their own. Several histories of fatal accidents ensuing after treatment are reported. As to their own treatment, they merely state that it is simple, requires hospitalization, and that large numbers of patients can be treated by a few men. They even compute the cost of treatment per day as 1.25 fr. per patient.

They state that a great day would dawn if they were able to divulge their secret, but because of sacred family duties, and inviolable stipulations they cannot reveal the nature of their treatment.

This, of course, was merely a necessary expedient because of the financial consideration involved. If they were to make public their methods, their only means of livelihood would soon disappear. Suffice it to say however, that the Mahons had, very early in their experience, realized the importance and usefulness of epilation; they used their finger nails and became expert in their use. Epilation with forceps had thus fallen into disuse after Guy de Chauliac, Paré, Astruc and Sauvage. The mysterious ointments and secret powders used by the Mahons were undoubtedly employed to put the inquisitive off the track.

The original work and discoveries of the brothers Mahon had surprisingly little reverberation. It is true that Alibert, in his "Monograph sur les Dermatoses" (1832-1835), alludes to tinea tonsurans, and several of his pupils named it, but there is evident confusion of terms and ideas. At the

same time, Alibert, as physician to the St. Louis Hospital, surely was very well acquainted with the work of the Mahons. The majority of contemporary writers ignored absolutely tinea of the scalp, neither mentioning it nor describing it. Brocque and Hardy in recent historical sketches of the work in the St. Louis Hospital, make no mention of the Mahons. Léon Meunier, in his history of medicine, contains no reference to them. However Raver, in his second English edition, states, "Of all the depilatory methods proposed, that of the Messrs. Mahon is unquestionably the best. They begin by cutting the hair, etc., removing incrustations with flour poultices . . . then the parts are annointed with the depilatory ointment; later an epilatory powder is used, in conjunction with a fine comb." A few pages later, Rayer again mentions the work of the Mahons and also quotes from a report of the analysis of their proprietary remedies published by M. Bracconot. Three powders were employed, and their chemical constitution proved to be essentially an impure subcarbonate of potash.

Gruby, in his report on the organism subsequently named *Trichophyton endothrix*, mentions Mahon in the title of his paper.

Thomas Bateman, in his 8th edition of "A Practical Synopsis of Cut. Dis. according to Dr. Willan," mentions Mahon's method of removing infected hairs in Favus (p. 216). He also mentions Mahon in his bibliography.

Bazin, in his "Affections Cutanées Parasitaires," 1862, cites Mahon repeatedly and in a complimentary fashion (p. 152). After stating that the younger Mahon deserves the honor of being the first to name and describe the entity of tinea tonsurans, he cannot understand upon what basis are founded the reproaches which Alibert and later Cazenave, directed toward him.

In 1840 Cazenave re-discovered tinea tonsurans and gave a masterly clinical description of it, and made the first differentiation of ringworm of the scalp from alopecia areata. It seems entirely probable that the diagnosis of ringworm of the scalp in France from 1830-1840 was made only by the brothers Mahon, laymen.

An intensive search for bibliographical data relating to these interesting brothers has been most disappointing. Medical periodicals, both contemporary and modern, have, as was to be expected, completely ignored them. Even at the Hôpital St. Louis, where they worked for years, there is no information available as to their lives. Prof. Léon Brodier, the distinguished historian, has assured me that he is unaware of any document bearing on the brothers Mahon, considered, to use his own words, "as charlatans by French dermatologists." The publishers J. B. Baillière et fils, the same firm that brought out the Mahons' book over a century ago, also have no knowledge whatever of any facts concerning the Mahons.

Quérard, in La France litteraire (Vol. 5), mentions the younger Mahon, in connection with the book, and gives his date of death as October, 1833, at Paris. This apparently conflicts with other data supplied by Brodier, who stated that Mahon jeune wrote another book in 1868, published also by Baillière, entitled "Considerations sur le traitment des Teignes" which is listed incorrectly in the Index Catalogue under the name of Mignot-Mahon. I have been unable to obtain a copy of this book. In this volume, again quoting from Brodier, he stated that he had a son and two sons-in-law, called Vaconin and Mignot-Mahon, who also busied themselves with the treatment of la teigne. There was also a son-in-law of the elder Mahon, named Guilbert.

The brothers Mahon, and their family, conducted for many years a private clinic in Paris, devoted to the treatment of ringworm infections, which was situated at the Rue du Pas-de-la-Mule. The clinic was maintained by their descendants until 1914. One of the best known of these, Paul de Molènes-Mahon, who died in 1916, published a thesis on Polymorphous Erythema in 1884.

The spectacle of a non-medical family attaining to special skill and ability in the diagnosis and treatment of a particular disease is not unusual in the history of medicine, and not limited to dermatology. An outstanding example is that of the famous Thomas family of bonesetters of Liverpool, who flourished at about the same time.

Sabouraud, who evinces a most friendly spirit to the Mahons, calls them "empiriques," empiricists, or possibly lay healers. This term is surely less opprobrious than charlatan, employed by Brodier. Col. Garrison, in his recent delightful paper on Quackery, undertakes to describe three types of medical imposters; speaking of the charlatan, he describes him as "the Doctor Know-all of Grimm's fairy tales, whose top-heavy assumption of omniscience ranges anywhere from parade of erudition to maundering about the ultimate nature of disease." Not so with the Mahons; it is safe to say that had they possessed the necessary professional qualifications, their book would have been hailed as a solid contribution to dermatology, indeed a landmark of progress. It is true that by keeping their methods and remedies secret, they violated the fundamental canons of medical ethics, but not being of the profession, they should be judged by more charitable and elastic standards.

More than a century has gone by, and it does not seem proper that the name of these brothers who, working during an entire generation, accepted by their illustrious contemporaries, officially certified by the government in their special capacities, and securing genuine therapeutic successes in a field where all others had encountered failure, should be relegated to oblivion.

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## RESOLUTION PASSED AT THE OCTOBER MEETING OF THE COUNCIL RE: GRADUATE FORTNIGHT OF 1934

The Council of the Academy has noted with great satisfaction the splendid success which attended the Graduate Fortnight for 1934. The Council has been informed by the Director that this success resulted from the enthusiasm with which the Committee on Medical Education, the Sub-Committee on the Fortnight, the Committee on Exhibit, and the members of the Academy staff worked to provide a most interesting program and exhibit. Therefore,

BE IT RESOLVED, that the Council formally express its appreciation of the work done and extend a vote of thanks to all those, including the exhibitors and the associated hospitals who took part in this gratifying accomplishment. The Council directs that this action be published in the Academy Bulletin.